

# Communications Equipment Operators

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## Significant Points

- Switchboard operators hold 3 out of 4 jobs.
- Workers train on the job.
- Employment is expected to decline.

## Nature of the Work

Most communications equipment operators work as *switchboard operators* for a wide variety of businesses, such as hospitals, business support services, and employment services. Switchboard operators operate private branch exchange (PBX) or voiceover Internet protocol (VoIP) switchboards to relay incoming, outgoing, and interoffice calls, usually for a single organization. They also may handle other clerical duties, such as supplying information, taking messages, and announcing visitors. Technological improvements have automated many of the tasks handled by switchboard operators. New systems automatically connect outside calls to the correct destination or automated directories, and voice-mail systems take messages without the assistance of an operator.

Some communications equipment operators work as *telephone operators*, assisting customers in making telephone calls. Although most calls are connected automatically, callers sometimes require the assistance of an operator. *Central office operators* help customers to complete local and long-distance calls. *Directory assistance operators* provide customers with information such as telephone numbers or area codes.

When callers dial "0," they usually reach a central office operator, also known as a *local, long-distance, or call completion operator*. Most of these operators work for telephone companies, and many of their responsibilities have been automated. For example, callers can make international, collect, and credit card calls without the assistance of a central office operator. Other tasks previously handled by these operators, such as billing calls to third parties and monitoring the cost of a call, also have been automated.

Callers still need a central office operator for a limited number of tasks, including placing person-to-person calls or interrupting busy lines if an emergency warrants the disruption. When natural disasters such as storms or earthquakes occur, central office operators provide callers with emergency phone contacts. They also assist callers who are having difficulty with automated phone systems. An operator monitoring an automated system that aids a caller in placing collect calls, for example, may intervene if a caller needs assistance with the system.

Directory assistance operators provide callers with information such as telephone numbers or area codes. Most directory assistance operators work for telephone companies; increasingly, they also work for companies that provide business services. Automated systems now handle many of the responsibilities once performed by directory assistance operators. The systems prompt callers for a listing and may even connect the call after providing the telephone number. However, directory assistance operators monitor many of the calls received by automated systems. The operators listen to recordings of the customer's request and then key information into

electronic directories to access the correct telephone numbers. Directory assistance operators also provide personal assistance to customers having difficulty using the automated system.

Other communications equipment operators include workers who operate satellite communications equipment, telegraph equipment, and a wide variety of other communications equipment.

## Working Conditions

Most communications equipment operators work in pleasant, well-lit surroundings. Because telephone operators spend much time seated at keyboards and video monitors, employers often provide workstations designed to decrease glare and other physical discomforts. Such improvements reduce the incidence of eyestrain, back discomfort, and injury due to repetitive motion.

Switchboard operators generally work the same hours as other clerical employees at their company. In most organizations, full-time operators work regular business hours over a 5-day workweek. Work schedules are more irregular in hotels, hospitals, and other organizations that require round-the-clock operator services. In these companies, switchboard operators may work in the evenings and on holidays and weekends.

Central office and directory assistance operators must be accessible to customers 24 hours a day; therefore, they work a variety of shifts. Some operators work split shifts, coming on duty during peak calling periods in the late morning and early evening and going off duty during the intervening hours. Telephone companies normally assign shifts by seniority, allowing the most experienced operators first choice of schedules. As a result, entry-level operators may have less desirable schedules, including late evening, split-shift, and weekend work. Telephone company operators may work overtime during emergencies.

Approximately 1 in 5 communications equipment operators works part time. Because of the irregular nature of telephone operator schedules, many employers seek part-time workers for those shifts that are difficult to fill.

An operator's work may be quite repetitive and the pace hectic during peak calling periods. To maintain operators' efficiency, supervisors at telephone companies often monitor their performance, including the amount of time they spend on each call. The rapid pace of the job and frequent monitoring may cause stress.



Switchboard operators also may handle clerical duties.

Employment

Communications equipment operators held about 304,000 jobs in 2002. About 3 out of 4 worked as switchboard operators. Employment was distributed as follows:

|  |         |
|--|---------|
| Switchboard operators, including answering service ..... | 236,000 |
| Telephone operators .....                                | 50,000  |
| All other communications equipment operators .....       | 19,000  |

Most switchboard operators worked for services establishments, such as employment services, hospitals, and hotels and motels.

Training, Other Qualifications, and Advancement

Communications equipment operators receive their training on the job. At large telecommunications companies, entry-level central office and directory assistance operators may receive both classroom and on-the-job instruction that can last several weeks. At small telecommunications companies, operators usually receive shorter, less formal training. These operators may be paired with experienced personnel who provide hands-on instruction. Switchboard operators also may receive short-term, informal training, sometimes provided by the manufacturer of their switchboard equipment.

New employees are trained in the operation of their equipment and in procedures designed to maximize efficiency. They are familiarized with company policies, including the expected level of customer service. Instructors monitor both the time and quality of trainees' responses to customer requests. Supervisors may continue to monitor new employees closely after they complete their initial training session.

Employers generally require a high school diploma for operator positions. Applicants should have clear speech, good hearing, and strong reading, spelling, and numerical skills. Computer literacy and typing skills also are important, and familiarity with a foreign language is helpful because of the increasing diversity of the population. Candidates for positions may be required to take an examination covering basic language and math skills. Most companies emphasize customer service and seek operators who will remain courteous to customers while working at a fast pace.

After 1 or 2 years on the job, communications equipment operators may advance to other positions within a company. Many enter clerical occupations in which their operator experience is valuable, such as customer service representative, dispatcher, and receptionist. (See the *Handbook* statements on these occupations.) Operators interested in more technical work may take training classes and advance into positions having to do with installing and repairing equipment. (See the *Handbook* statements on radio and telecommunications equipment installers and repairers, and line installers and repairers.) Promotion to supervisory positions also is possible.

Job Outlook

Employment of communications equipment operators is projected to decline through 2012, due largely to new labor-saving communications technologies, the movement of jobs to foreign countries, and consolidation of telephone operator jobs into fewer locations, often staffed by business support or employment services firms. Virtually all job openings will result from the need to replace communications equipment operators who transfer to other occupations or leave the labor force.

Developments in communications technologies—in particular, voice recognition systems that are accessible and easy to use—will continue to have a significant impact on the demand for switchboard operators. Voice recognition technology allows automated telephone systems to recognize human speech. Callers speak directly to the system, which interprets the speech and then connects

the call. Because voice recognition systems do not require callers to input data through a telephone keypad, they are easier to use than touch-tone systems. Voice recognition systems are increasingly able to understand sophisticated vocabulary and grammatical structures; however, many companies will continue to employ operators so that those callers who do have problems can access a "live" employee if they desire.

Electronic communication through the Internet or e-mail provides alternatives to telephone communication and requires no operators. Internet directory assistance services are reducing the need for directory assistance operators. Local telephone companies currently have the most reliable telephone directory data; however, Internet services provide information such as addresses and maps, in addition to telephone numbers. As the functions of telephones and computers converge, the convenience of Internet directory assistance is expected to attract many customers, reducing the need for telephone operators to provide this service.

Consolidations among telephone companies also will reduce the need for operators. As communications technologies improve and the prices of long-distance service fall, telephone companies will contract out and consolidate telephone operator jobs, often to other countries. Operators will be employed at fewer locations and will serve larger customer populations.

Earnings

Median hourly earnings of switchboard operators, including answering service, were \$10.19 in 2002. The middle 50 percent earned between \$8.41 and \$12.27. The lowest 10 percent earned less than \$7.13, and the highest 10 percent earned more than \$14.59. Median hourly earnings in the industries employing the largest numbers of switchboard operators in 2002 are given in the following tabulation:

|  |         |
|--|---------|
| General medical and surgical hospitals ..... | \$10.20 |
| Offices of physicians .....                  | 10.20   |
| Traveler accommodation .....                 | 9.69    |
| Employment services .....                    | 9.43    |
| Business support services .....              | 8.37    |

Median hourly earnings of telephone operators in 2002 were \$13.75. The middle 50 percent earned between \$9.86 and \$18.35. The lowest 10 percent earned less than \$8.09, and the highest 10 percent earned more than \$20.80.

Some telephone operators working at telephone companies are members of the Communications Workers of America or the International Brotherhood of Electrical Workers. For these operators, union contracts govern wage rates, wage increases, and the time required to advance from one pay step to the next. It normally takes 4 years to rise from the lowest paying nonsupervisory operator position to the highest. Contracts call for extra pay for work beyond the normal 6-1/2 to 7-1/2 hours a day or 5 days a week, for Sunday and holiday work, and for bilingual positions. A pay differential also is guaranteed for night work and split shifts. Many contracts provide for a 1-week vacation after 6 months of service, 2 weeks after 1 year, 3 weeks after 7 years, 4 weeks after 15 years, and 5 weeks after 25 years. Holidays range from 9 to 11 days a year.

Median hourly earnings of communication equipment operators, all other, in 2002 were \$15.21. The middle 50 percent earned between \$10.79 and \$17.90. The lowest 10 percent earned less than \$8.36, and the highest 10 percent earned more than \$21.82.

Related Occupations

Other workers who provide information to the general public include dispatchers; hotel, motel, and resort desk clerks; information

and record clerks; customer service representatives; receptionists and information clerks; and reservation and transportation ticket agents and travel clerks.

**Sources of Additional Information**

For more details about employment opportunities, contact a telephone company or temporary help agency, or write to either of the following unions:

- Communications Workers of America, 501 3rd St. NW., Washington, DC 20001.
- International Brotherhood of Electrical Workers, Telecommunications Department, 1125 15th St. NW., Room 807, Washington, DC 20005.